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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/749,446	12/31/2003	Rajnish Batlaw	5343B	9821

7590 06/23/2004
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EXAMINER

SHOSHO, CALLIE E

ART UNIT PAPER NUMBER

1714

DATE MAILED: 06/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/749,446	BATLAW, RAJNISH	
	Examiner	Art Unit	
	Callie E. Shosho	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Harris et al. (U.S. 5,886,091) taken in view of the evidence in Krutak et al. (U.S. 5,194,463).

Harris et al. disclose gravure ink comprising black pigment, solvent such as toluene, resin, and polymeric colorant, i.e. colored polyurethane obtained from alkylene containing chromophore (col.3, lines 3-5, 31, 40-43 and 46-49, col.4, lines 10-25 and 62-65, and col.5, lines 19-20 and 41-62).

With respect to the alkylene containing chromophore, Harris et al. refers to Krutak et al. for specific alkylene containing chromophores. Krutak et al. disclose alkylene containing chromophores which exhibit maximum absorption at, for instance, 552 nm and 599 nm (examples 13 and 19).

In light of the above, it is clear that Harris et al. anticipate the present claim.

3. Claims 1-4 and 7-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Harris et al. (U.S. 5,886,091) taken in view of the evidence in Cross et al. (U.S. 4,284,729).

Harris et al. disclose gravure ink comprising black pigment, solvent such as toluene, resin, and polymeric colorant, i.e. colored polyurethane obtained from alkylene containing chromophore (col.3, lines 3-5, 31, 40-43 and 46-49, col.4, lines 10-25 and 62-65, and col.5, lines 19-20 and 41-62).

With respect to the polymeric colorant, Harris et al. refers to Cross et al. for specific polyoxyalkylene containing chromophores. Cross et al. disclose polyoxyalkylene colorant comprising nonionic chromophore which comprises polyoxyalkylene chains wherein the majority of chains are polyethylene oxide, polypropylene oxide, and/or polybutylene oxide (col.1, line 53-col.2, line 39). Given that Harris et al. disclose colorant identical to that presently claimed, it is clear that the colorant would inherently exhibit maximum absorption at same wavelength as presently claimed.

In light of the above, it is clear that Harris et al. anticipate the present claims.

4. Claims 1-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Batlaw et al. (U.S. 5,429,841).

Batlaw et al. disclose gravure ink comprising black pigment, solvent such as toluene, resin, and polymeric colorant, i.e. polyoxyalkylene containing chromophore (col.3, 58-60 and 64-67, col.4, lines 3-8, 18-38, and 41-50, col.5, lines 24-26 and 48-49, col.6, lines 35-51, and col.7, lines 40-41). Attention is drawn to example 2 of Batlaw et al., which discloses polyoxyalkylene containing chromophore comprising 2-14 moles ethylene oxide and 4-16 moles

propylene oxide from which it is calculated that the ratio of ethylene oxide to propylene oxide is 0.125 to 3.5.

Given that Batlaw et al. disclose alkyleneoxy substituted chromophore identical to that presently claimed including same type of chromophore, i.e. azo, anthraquinone, etc. and same type and amount of different polyoxyalkylene chains including propylene oxide, it is clear that such colorant would intrinsically exhibit maximum absorption at same wavelength as presently claimed.

In light of the above, it is clear that Batlaw et al. anticipate the present claims.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harris et al. (U.S. 5,886,091) in view of Baumgartner et al. (U.S. 4,812,141).

Harris et al. disclose gravure ink comprising black pigment, solvent such as toluene, resin, and polymeric colorant, i.e. colored polyurethane obtained from alkylene containing chromophore (col.3, lines 3-5, 31, 40-43 and 46-49, col.4, lines 10-25 and 62-65, and col.5, lines 19-20 and 41-62).

The difference between Harris et al. and the present claimed invention is the requirement in the claims of specific type of polymeric colorant.

Harris et al. disclose colored polyurethane obtained from polyoxyalkylene containing chromophore but does not disclose specific polyoxyalkylene containing chromophore as presently claimed.

Baumgartner et al., which is drawn to gravure ink, disclose the use of colored thermoplastic resin that comprises colorant in the form of alkyleneoxy substituted chromophore wherein the chromophore is nonionic and the polyoxyalkylene chains contain ratio of polypropyleneoxy to polyethyleneoxy of, for instance, 3:1 or 4:1. The motivation for using such colorant is to reduce color migration (col.1, lines 10-15 and 59-64, col.3, line 55-col.4, line 50, Table 9, and Example 27). Given that Baumgartner et al. disclose alkyleneoxy substituted chromophore identical to that presently claimed including same type of chromophore, i.e. azo, anthraquinone, and indigoid, and types and amounts of different polyoxyalkylene chains, it is clear that such colorant would intrinsically exhibit maximum absorption at same wavelength as presently claimed.

In light of the motivation for using specific polyoxyalkylene containing chromophore disclosed by Baumgartner et al. as described above, it therefore would have been obvious to one of ordinary skill in the art to use such polyoxyalkylene containing chromophore in Harris et al. in order to produce ink which exhibits reduced color migration and thereby arrive at the claimed invention.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hunt et al. (U.S. 6,369,128) disclose gravure ink comprising solvent, polyoxyalkylene substituted colorant, and resin, however, there is no disclosure of using black pigment or black dye.

Sacripante et al. disclose ink comprising water, pigment, resin, and polymeric colorant known under the tradename Reactint Violet X80 which is identical to the polymeric colorant used in the present invention, however, Sacripante et al. is drawn to ink jet ink not gravure ink as presently claimed.

Stephens et al. (U.S. 5,955,523) disclose ink comprising colored thermoplastic resin wherein the colorant comprises polyoxyalkylene-substituted chromophores.

Grandidier et al. (2003/0127023) disclose gravure ink comprising solvent, resin, pigment with λ_{max} of 556 - 596 nm, and additional colorant, however, the pigment is not polymeric as required in the present claims.

Art Unit: 1714

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Callie E. Shosho
Primary Examiner
Art Unit 1714

CS
6/18/04